

TABLE C-1. SUMMARY OF APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS IDENTIFIED FOR THE AFRL ARROYOS  
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Item No.	Requirement	Citation	Federal or State Requirement	Description	ARAR Determination	Comments
Chemical-Specific ARARs						
1	Primary Drinking Water Standards (Non-zero MCLGs and MCLs)	Safe Drinking Water Act, 40 CFR Part 141	Federal	MCLGs are goals under the SDWA which are set at levels at which no adverse health effects will occur and allow an adequate margin of safety. MCLs are promulgated and enforceable maximum concentrations of drinking water priority pollutants that are set as closely as feasible to MCLGs, considering best technology, treatment techniques, and other factors. The NCP states that primary drinking water standards are legally applicable only to drinking water at the tap, but are relevant and appropriate as cleanup standards for groundwater and surface water that have been determined to be current or future drinking water sources. Under CERCLA 1219(d)(2)(A), remedial actions shall attain MCLGs where relevant and appropriate. The NCP provides that where an MCLG has been set at a level of zero, the MCL for that contaminant shall be attained.	Relevant and appropriate	Both State MCLs and Federal MCLs are ARARs. For the seep water remedy, primary MCLs were chosen as a cleanup level protective of the underlying groundwater, and ecological receptors.
		22 CCR, Div. 4, Ch. 15, Articles 4, 4.5, and 5.5, Sections 64431 et seq., 64444	State	Establishes standards for public water supply systems, including primary MCLs. State MCLs must be more stringent than Federal MCLs. State MCLs are incorporated into State and Regional Water Quality Board Water Quality Control Plans as water quality objectives (WQOs) for protection of current and potential drinking water supply sources. MCLs are some of the applicable upper-end objectives for ambient groundwater and surface water where the water is a source of drinking water, as defined in the Water Quality Control Plans.		
2	Water Quality Control Plan, South Lahontan Basin (Basin Plan)	23 CCR Div. 4, Ch. 1, Article 6, Section 3950; Water Code Sections 13140 and 13240	State	The Porter-Cologne Water Quality Control Act established authority of the SWRCB and RWQCB to regulate discharges into Waters of the State. The Basin Plan establishes beneficial uses and the water quality criteria based upon such uses (WQOs). The Basin Plan serves to protect the beneficial uses and water quality of the surface and groundwater in the South Lahontan Basin.	Relevant and appropriate	The beneficial uses listed in Section 2 of the Basin Plan are to be waived in the GICMA. Basin Plan relevant and appropriate to the seep water remedy.
Location-Specific ARARs						
3	Endangered Species Act of 1973, Section 7(c), as interpreted in the Combined Biological Opinion and Conference Report for Installation and Restoration Program Activities at Phillips Laboratory, Edwards AFB, California (USFWS 1993)	50 CFR 200 and 402	Federal	Requires formal consultation with the USFWS if activities have the potential to affect a listed species or alter the natural environment of listed endangered and threatened species. Results of this consultation, as they pertain to the threatened desert tortoise at the AFRL, are presented in the Biological Opinion (USFWS 1993).	Applicable	Endangered or threatened species and/or critical habitat are found at Edwards AFB. The Biological Opinion (USFWS 1993) details measures to be taken to minimize effects to the desert tortoise. Additionally, the net take of desert tortoise habitat will be limited by working in previously-disturbed areas (using existing roads) to the extent practicable, and by restoration of disturbed habitat (or an alternate off-site habitat of equal size).
Location-Specific ARARs (continued)						
4	California Endangered Species Act	California Fish and Game Code, Div. 3,	State	Establishes species, subspecies, and varieties of native California plants or animals as endangered, threatened, or rare. Prohibits the taking, importation, or sale of any	Relevant and appropriate	Potentially relevant and appropriate if there are endangered or threatened species in the area that could be affected if actions are not taken to conserve

**Commented [A1]:** Rejected proposed modifications. ARARs still apply for an interim groundwater ROD. This ARAR is the basis of the groundwater ICs. In addition, this ARAR applies to the seep water.

**Commented [A2]:** Added back to be consistent with Section 2.13.3.1 (page 2-109)

**Commented [A3]:** Rejected modification. This issue is not subject to the dispute. Retained DF ROD Rev 2 language.

**Commented [A4]:** Rejected new sentence which states: "The area has been previously disturbed and is unlikely to disturb endangered or threatened species or critical habitat." This was not subject to the dispute DF ROD Rev 2 language retained..

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		Ch. 1.5, Article 1, Sections 2050-2055; Article 3, Section 2080;  14 CCR, Div. 1, Subdivision 3, Ch. 6, Article 1, Sections 670.2, 670.5, and 783 et. seq.		species, or any part thereof, of an endangered species or a threatened species. Prohibits releases and/or actions that would have a deleterious effect on species or their habitat. Contains provisions concerning CDFG coordination and consultation with State and Federal agencies and with project applicants.  14 CCR Section 670.1 provides a listing of the plants of California to be declared endangered, threatened or rare.  14 CCR Section 670.5 provides a listing of the animals of California to be declared endangered or threatened.  14 CCR Section 783 et. seq. provides the implementation regulations for the California Endangered Species Act.		the species, and where State law has a listing that is more stringent than the Federal Endangered Species Act and Migratory Bird Treaty Act. State listed species known to occur in the Arroyos Area include the desert tortoise and Mohave ground squirrel; the Golden eagle, a fully protected species, has also been observed.  As stated in Air Force Instruction 32-7064, dated 17 September 2004, State protected species will be protected when practicable and the appropriate State authority will be contacted if conflicts arise. The State may provide procedures for minimization of impacts and harm to species.
5	Wildlife Species/Habitats	California Fish and Game Code; Div.3, Ch. 1, Section 2000; Div. 4, Part 1, Ch. 1, Section 3005, Part 2, Ch.1, Sections 3511 and 3513; and Div. 9, Ch.1, Section 12000 et seq. 14 CCR, Div. 1, Subdivision 2, Ch. 1, Section 250; Ch. 7, Section 507; Subdivision 3, Ch. 1, Section 650	State	Prohibits the taking of birds and mammals, except as otherwise provided in the Fish and Game Code and 14 CCR, including taking by poison.  Section 3511 provides that it is unlawful to take or possess any of the following fully protected birds: (a) American peregrine falcon; (b) Brown pelican; (c) California black rail; (d) California clapper rail; (e) California condor; (f) California least tern; (g) Golden eagle; (h) Greater sandhill crane; (i) Light-footed clapper rail; (j) Southern bald eagle; (k) Trumpeter swan; (l) White-tailed kite; (m) Yuma clapper rail.	Relevant and appropriate	Potentially relevant and appropriate to the extent that such fully protected birds or their habitat occur on or near Arroyos Area. The Golden eagle is a fully protected bird while the loggerhead shrike is a California species of special concern; both species are known to occur at the AFRL.  As stated in Air Force Instruction 32-7064, dated 17 September 2004, State-protected species will be protected when practicable and the appropriate State authority will be contacted if conflicts arise. The State may provide procedures for minimization of impacts and harm to species.
6	Protected birds	California Fish and Game Code Div. 4, Part 2, Ch. 1, Sections 3503 and 3503.5 and Ch. 3, Section 3800	State	Section 3503 requires that action must be taken to avoid the take or destruction of the nest or eggs of any bird. This section prohibits the take, possession, or needless destruction of the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.  Section 3503.5 prohibits the take, possession, or destruction of any birds in the orders of Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.	Relevant and appropriate	Potentially relevant and appropriate to the extent that nongame birds, birds-of-prey, or their nests and eggs are located on or near the Arroyos Area. Bird-of-prey species that may be found on or near the Arroyos Area include the Golden eagle, a fully protected species; and the loggerhead shrike, a California species of special concern.  As stated in Air Force Instruction 32-7064, dated 17 September 2004, State-protected species will be protected when practicable and the appropriate State authority will be contacted if conflicts arise. The State may provide procedures for minimization of impacts and harm to species.
6	Protected birds (continued)			Section 3800 requires that action must be taken to prevent the take, possession, or destruction of any non-game birds or their eggs. This section prohibits the take of nongame birds, except in accordance with regulations of the commission, or when related to mining operations with a mitigation plan approved by the department. This section further provides requirements concerning mitigation plans related to mining.		

**Commented [A5]:** 2014 potential ARARs chart: "The State will identify [Fish and Game Code Section 2080] as an ARAR where the proposed action could result in a take of threatened or endangered species."

**Commented [A6]:** Regulators have rejected AF removal of the ecological and hazardous waste regs. See comments in text of the ROD.

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7	Protected mammals	California Fish and Game Code Div. 4, Part 3, Ch. 2, Section 4000 et. seq ; Ch. 3,Section 4150; Ch. 8, Section 4700; Ch. 10, Section 4800 et. seq.; 14 CCR, Div. 1, Subdivision 2, Ch. 5, Section 460	State	<p>Actions must be taken to assure that no fully protected mammals are taken or possessed at any time.</p> <p>Section 4000 et. seq. provides that a fur-bearing mammal may be taken only with a trap, a firearm, bow and arrow, poison under a proper permit, or with the use of dogs. The Code identifies fur-bearing mammals as the following: pine marten, fisher, wolverine, mink, river otter, gray fox, cross fox, silver fox, red fox, kit fox, raccoon, beaver, badger, and muskrat.</p> <p>Section 4150 requires that action must be taken to avoid the take or possession of nongame mammals. Nongame mammals are those occurring naturally in California which are not game mammals, fully protected mammals, or fur-bearing mammals. These mammals, or their parts, may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission.</p> <p>Section 4700 prohibits the take or possession of any of the fully protected mammals or their parts. The following are fully protected mammals: (a) Morro Bay kangaroo rat; (b) Bighorn sheep except Nelson bighorn sheep; (c) Northern elephant seal; (d) Guadalupe fur seal; (e) Ring-tailed cat; (f) Pacific right whale; (g) Salt-marsh harvest mouse (h) Southern sea otter; (i) Wolverine.</p> <p>Section 4800 et. seq. requires that action must be taken to avoid injuring, taking, possessing or transporting any mountain lion. Mountain lions are specially protected mammals in California. It is unlawful to take, injure, possess, transport, or sell any mountain lion or any part or product thereof. Violation of this section is a misdemeanor.</p> <p>14 CCR Section 460 makes it unlawful to take fisher, martin, river otter, desert kit fox, and red fox.</p>	Relevant and appropriate	<p>Potentially relevant and appropriate if regulated mammals and/or their habitat are located on or near Arroyos Area. Desert kit fox and Badger are likely to be present on or near Arroyos Area.</p> <p>As stated in Air Force Instruction 32-7064, dated 17 September 2004, State-protected species will be protected when practicable and the appropriate State authority will be contacted if conflicts arise. The State may provide procedures for minimization of impacts and harm to species.</p>
8	Protected amphibians and reptiles	California Fish and Game Code Div. 5, Ch. 1, Section 5000 et. seq. 14 CCR, Div. 1, Subdivision 1, Ch. 5, Section 40.	State	<p>Section 5000 makes it unlawful to sell, purchase, harm, take, possess, or transport any tortoise or parts thereof, or to shoot any projectile at a tortoise. This does not apply to the taking of any tortoise when authorized by the department for education, scientific, or public zoological purposes.</p> <p>14 CCR Section 40 makes it unlawful to capture, collect, intentionally kill or injure, possess, purchase, propagate, sell, transport, import, or export any native reptile or amphibian, or parts thereof unless under special permit from the department issued</p>	Relevant and appropriate	<p>Endangered or threatened species and/or critical habitat are found at Edwards AFB. The AFRL Arroyos area supports a moderate population of desert tortoise. While the AFRL Arroyos GICMA is not a part of the “critical habitat” designated to its northeast, the USAF at Edwards AFB has a “head start” program involving the release of baby tortoises near the eastern boundary of the AFRL Arroyos GICMA. The Base INRMP details, or incorporates by reference, the management practices to be followed at sites containing desert tortoise habitat.</p>

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				pursuant to 14 CCR Sections 650, 670.7, or 783 of these regulations, or as otherwise provided in the Fish and Game Code or these regulations.		Some reptile species that are likely to be present on or near the Arroyos Area includes Mojave green rattlesnake, Desert rosy boa, Horned lizard, and Long-nosed leopard lizard.  As stated in Air Force Instruction 32-7064, dated 17 September 2004, State-protected species will be protected when practicable and the appropriate State authority will be contacted if conflicts arise. The State may provide procedures for minimization of impacts and harm to species.
9	Rare native plants	California Fish and Game Code Div. 2, Ch. 10, Section 1908 14 CCR, Div. 1, Subdivision 3, Ch. 3, Section 670.2	State	Action must be taken to conserve native plants; there can be no releases and/or actions that would have a deleterious effect on species or habitat. Section 1908 imposes a substantive requirement by forbidding any person to take rare or endangered native plants. 14 CCR Section 670.2 provides a listing of the plants of California that have been declared to be Endangered, Threatened or Rare.	Relevant and appropriate	Potentially relevant and appropriate to the extent that there are rare or endangered plants on or near the Arroyos Area. Rare plants known to occur in the area include Desert cymopterus ( <i>Cymopterus deserticola</i> ).  As stated in Air Force Instruction 32-7064, dated 17 September 2004, State-protected species will be protected when practicable and the appropriate State authority will be contacted if conflicts arise. The State may provide procedures for minimization of impacts and harm to species.
10	National Historical Preservation Act	16 USC Section 470 et seq.	Federal	Requires federal agencies to consider the effect of any federally assisted undertaking or licensing on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register or Historic Places. All Federal structures dating around WWII or earlier are eligible for inclusion in the National Register of Historic Places until determined otherwise, per Section 106.	Applicable	There are historic buildings inside the AFRL Arroyos GICMA (however, none are currently listed on the National Register); also surveys in the Arroyos Area may be incomplete. The selected remedy involves, at a minimum, well drilling and sampling. Future drilling and sampling at the Arroyos Area will be monitored to avoid impacts to any identified or unidentified historically significant sites.
Action-Specific ARARs						
114	Land Use Controls (LUCs)	22 CCR, Div. 4.5, Ch. 39, Section 67391.1 (a)(1), (a)(2), (d), (e)(1), (e)(2), (f) and (i).  substantive portions of Civil Code, Section 1471 (e) and (b), (c) and (f)	State	Requires that if a remedy will result in hazardous substances remaining on a property at levels unsuitable for unrestricted use and unlimited exposure, the limitations or controls are clearly set forth and defined in the response action decision document, and that the decision document include an implementation and enforcement plan.  In the event of a property transfer, requires the State to enter into restrictive Land Use Covenants with land-owners and their successors, with exceptions for federal-to-federal property transfers.	Relevant and appropriate	Institutional controls (ICs), limiting exposure to contaminated groundwater, are required at the AFRL Arroyos until hazardous substance concentrations in groundwater are suitable for unrestricted use.  <del>Imposes appropriate limitations (except as provided in Section 67391.1(e)(2) and (f)) on land use when hazardous materials, hazardous wastes or constituents, or hazardous substances will remain at the property at levels that are not suitable for unrestricted use of the land</del>  Although it is not contemplated that property at the AFRL Arroyos will be transferred, in the event that such property is transferred, the AF and the State have agreed to follow the procedures laid out in this ROD for LUCs.

**Commented [A7]:** Rejected deletion with slight modifications. This is not subject to the dispute.

**Commented [A8]:** Regulators have revised this citation to be consistent with the 2019 Travis AFB ROD amendment. Pls see our comment on this in the ROD.

